UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

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SUBJECT: L.E. Carpenter Superfund Site: Air Programs and Air Compliance Branch Review of the Draft Feasibility Study Report

FROM: William J. Barrett
Impact Assessment Section, AWM-APB

TO: Jonathan Josephs, Project Manager
New Jersey Superfund Branch II, ERRD

Through: Ray Werner, Chief
Impact Assessment Section, AWM-APB

The Air Programs and Air Compliance Branches have examined the draft Feasibility Study (FS) Report for the L.E. Carpenter Superfund Site, located in Wharton, Morris County, New Jersey. The contaminants of concern addressed by this Feasibility Study are diethyl hexyl phthalate (DEPH) in the soil, and DEHP, xylenes, and ethylbenzene in groundwater.

Comments:

A number of remedial alternatives were evaluated in the detailed analysis of alternatives:

- no action,
- institutional controls,
- closure,
- in situ bioremediation, and
- on-site soil washing.

In situ bioremediation and on-site soil washing are both permanent solutions. In situ bioremediation is an innovative technology. The recommendation made in the FS is for the bioremediation alternative. Implementing this alternative will introduce the potential for volatilization of organic pollutants. A list of potential ARARs is attached. Below, we list each potential alternative and the potential ARARs associated with the alternative. A response to this list would be helpful in ensuring that all air concerns are being properly addressed.

No Action and Institutional Control Alternatives- The General ARARs especially those which address particulate matter and ozone and the VOC ARARs are of primary interest for the No Action and Institutional Control alternatives.

Closure- The General and Excavation/Fugitive Dust ARARs must be addressed in the Closure Alternative since excavation and movement of soil will occur during the closure process. The ARARs concerning sulfur dioxide, nitrogen dioxide, carbon monoxide, and lead are probably not important at this site.

In-situ Bioremediation- Here, the General ARARs as they apply to volatile organics (ie. ozone) and VOC ARARs are most important. Fugitive dusts should not be expected to be of concern during Bioremediation.

On-site Soil Washing- The General ARARs which address ozone and the VOC ARARs are once again of particular importance. Regulations concerning fugitive dust will come into play only if dry soil is being disturbed at the site.

If you have any questions concerning this review, air ARARs in general, or air pollution controls at Superfund sites, please call me at extension 2517 or Patrick Foley at extension 6674.

Attachment

cc: G. Musumeci, AWM-APB
P. Foley, AWM-ACB

Attachment
L.E. Carpenter Superfund Site Potential ARARs

General ARARs

40 CFR 50 National Ambient Air Quality Standards

§50.4 Sulfur Oxides
(a) 80 micrograms per cubic meter ($\mu g/m^3$) or 0.03 parts per million (ppm) annual arithmetic mean.
(b) 365 $\mu g/m^3$ (0.14 ppm) maximum 24 hour concentration not to be exceeded more than once per year.

§50.6 Particulate Matter
(a) 150 $\mu g/m^3$ for a 24 hour average concentration.
(b) 50 $\mu g/m^3$ for an annual arithmetic mean.

§50.8 Carbon Monoxide
(a) 1. For an eight hour averaging period the ambient concentration is not to exceed 10 milligrams per cubic meter (mg/m^3) (9 ppm) more than once a year.
2. For a 1 hour averaging period the ambient concentration is not to exceed 35 ppm (40 mg/m^3) more than once a year.

§50.9 Ozone
(a) Ambient concentrations are not to exceed 0.12 ppm (235 $\mu g/m^3$).

§50.11 Nitrogen dioxide
(a) Ambient concentrations are not to exceed 0.053 ppm (100 $\mu g/m^3$) for an annual arithmetic.

§50.12 Lead
Ambient concentrations are not to exceed 1.5 $\mu g/m^3$ for a calendar quarter arthmetic mean.

NJAC 7:27-13

13.3 Ambient air quality standards for suspended particulate matter
(a) Primary standards
1. During any 12-consecutive months, the geometric mean value of all 24-hour averages shall not exceed 75 $\mu g/m^3$; and
2. In any 12-consecutive months, 24-hour average concentrations may exceed 260 $\mu g/m^3$ no more than once.

13.4 Ambient air quality standards for sulfur dioxide
(a) Primary standards
1. During any 12-consecutive months, the arithmetic mean concentration of sulfur dioxide in ambient air shall not exceed 80 $\mu g/m^3$ (0.03 ppm); and
2. During any 12-consecutive months, 24-hour average concentrations may exceed 365 $\mu g/m^3$ (0.14 ppm) no more than once.

13.5 Ambient air quality standards for carbon monoxide
(a) Primary and secondary standards
1. During any 12-consecutive months, eight-hour average concentrations of carbon monoxide in ambient air may exceed 10 mg/m_3 no more than once; and
2. During any 12-consecutive months, one-hour average concentrations may exceed 40 mg/m^3 (35 ppm) no more than once.

13.6 Ambient air quality standards for ozone
(a) Primary standard
1. During any 12-consecutive months, daily maximum one-hour concentrations may exceed 0.12 ppm (235 $\mu g/m^3$) no more than once.

13.7 Ambient air quality standards for lead
(a) Primary and secondary standards
1. In any three consecutive months, the arithmetic mean of 24-hour averages shall not exceed 1.5 $\mu g/m^3$.

13.8 Ambient air quality standards for nitrogen dioxide
(a) Primary and secondary standards
1. In any 12 consecutive months, the arithmetic mean concentration shall not exceed 100 $\mu g/m^3$ (0.05 ppm).

NJAC 7:27-5

5.1 Definitions

Air pollution means the presence in the outdoor atmosphere of one or more contaminants in such quantities or duration as are, or tend to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property throughout the State and in such territories of the State as shall be affected thereby and excludes all aspects of employer-employee relationship as to health and safety.

5.2 General provisions

(a) No person shall cause, suffer, allow or permit to be emitted into the outdoor atmosphere substances in quantities which shall result in air pollution.

Excavation and Fugitve Dust ARARs

40 CFR 264 RCRA Standards

§264.251 Design and operating requirements.

(f) If any hazardous waste pile contains particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the pile to control wind dispersal.

§264.254 Monitoring and Inspection

(a) During construction or installation cover systems must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construciton or installation:

(1) Synthetic covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

(b) While a waste pile is in operation, it must be inspected weekly and after storms to detect evidence of:

(2) Proper functioning of wind dispersal control systems.

Subpart N - Landfills

§264.301 Design and operating requirements

(i) If the landfill contains any particulate matter which may be subject to wind dispersal, the owner or operator must cover or otherwise manage the landfill to control wind disperal.

To Be Considered:

Commonwealth of Puerto Rico Environmental Quality Board Regulation

Rule 404: Fugitive Dust

A) No person shall cause or permit any materials to be handled, transported, or stored without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, but not be limited to, the following:

1. The use of water or suitable chemicals for the control of dust in the demolition of existing buildings, construction operations, the grading of roads or the clearing of land;

2. The application of asphalt, water, or suitable chemicals on dirt roads or roads under construction, materials, stockpiles, and other surfaces which can give rise to airborne dust;

4. The covering, at all times when in motion, of open bodied trucks transporting materials likely to give rise to airborne dust;

B) No person shall cause or permit the discharge of visible emissions of fugitive dust beyond the boundary line of the property on which the emissions originate.

VOC ARARs

NJAC 7:27-16 Control and Prohibition of Air Pollution by Volatile Organic Substances

16.6 Source operations other than storage tanks, transfers, open top tanks, surface cleaners, surface coaters, and graphic arts operations

(a) No person shall cause, suffer, allow, or permit volatile organic substances (VOS) to be emitted into the outdoor atmosphere from any source operation in excess of the maximum allowable emission rate as determined in accordance with the procedure for using Table 4 (see the regulation for the procedure and for Tables 4 and 5).

NJAC 7:27-17 Control and Prohibition of Air Pollution by Toxic Substances

17.3 Storage, transfer, an use of toxic volatile organic substances

(b) In cases where the NJDEP or EPA determines that the equipment oroperating procedures as described i the Remedial Design do not represent advances in the art of control for the types and kind of TVOS emitted, The NJDEP or EPA will so notify the affected persons.

17.4 Discharge of Toxic Volatile Organic Substances

(a) No person shall cause, suffer, allow or permit any TVOS to be emitted from any source operation into the outdoor atmosphere unless such discharge is:

1. No less than 40 feet above grade; and
2. No less than 20 feet higher than any area of human use or occupancy within 50 feet; and
3. Directed vertically upward at a discharge velocity of 3600 feet per minute or greater.

(b) No person shall cause, suffer, allow or permit the emission of a TVOSinto the outdoor atmosphere from asystem equipment, or control apparatus not approved by the NJDEP or EPA as being effective in preventing aerodynamic downwash.